

Effective teaching through active learning

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Summary

There can be very few practitioners whose daily working life is not involved somehow in teaching or learning. Used in its broadest sense, we engage teaching everyday in our advice to patients, and conversely we learn from each of our patients. As we move inexorably towards compulsory reaccreditation for all practitioners, purposeful and effective continuing professional development takes over from the previously passive continuing medical education model. As Universities and Medical Schools recognise where most healthcare occurs and see the benefits of community-based education, increasing numbers of undergraduate and postgraduate students pass daily through our surgery doors. No doubt, the majority of busy practitioners see these activities as an increased workload rather than an opportunity, a stress factor rather than a possibility to develop in their personal lives.

In this article, we wish to suggest how some of our daily practice activities can be seen as opportunities to teach and learn; how by using the principles of being an effective teacher, we can create learning situations for all.

"Learning and teaching should not stand on opposite banks and just watch the river flow by; instead, they should embark together on a journey down the water. Through an active, reciprocal exchange, teaching can strengthen learning how to learn". **Loris Malaguzzi**¹

(SA Fam Pract 2005;47(9): 5-7)

So what makes an effective teacher?

Whether you are teaching in a college environment or taking students within the surgery; whether you are communicating with patients or friends and family, the same rules of effective teaching exist, and are related to the various approaches taken, and whether your input utilises a teacher-centred approach or relies more on learner-centredness.

Historically, and up until fairly recently, medicine has been traditionally taught, using a didactic and teacher-centred approach, often following the pattern that commences in primary and secondary levels of education. This form of didactic teaching is known to be comfortable for those learners who do not want to be challenged, and for those learners

who believe knowledge is simply material to be memorised and retained. It is also comfortable for teachers who are insecure in their ability to handle questions, discussion and debate; it may even allow deficiencies in the teacher's knowledge base to be covered up whilst making formal presentations. Most of the readers of this article are products of this form of teaching and there is no reason to suggest that they are anything but competent and proficient practitioners, a fact that has caused considerable debate amongst the medical profession.²

In the long term such didactic teaching, if relied on as the sole method of education, tends to lead to a state of dependency on the learner's part, and it is not a good model for professional development in the

singular world of Family Practice. Hence the vast majority of practitioners seek out and change to a more learner-centred and personal needs driven method of teaching and learning in their postgraduate life.

Learners themselves should not be seen as receptacles for information. They should be encouraged to seek and reflect on new knowledge in the light of their own experience and they should be able to decide on the most effective way of integrating that knowledge into their own practice of learning.

As we move to more progressive models of competency³ and appropriate styles of teaching and learning⁴, the teacher becomes an active facilitator of learning. The teacher works with the learner in a wide variety of learning opportunities

(both formal and informal) to maximise the learning process. Teaching and learning becomes a dynamic and interactive process – a partnership between teacher and learner – where the teacher is learning at the same time as the learner. The skill of the teacher lies in identifying and facilitating learning opportunities; providing links and directions for the learner; challenging the learners to reflect on both their own past experience and areas of new knowledge and practice skills; acting as a resource for learners to test and discuss their new or revised knowledge and skills.

A heavily teacher-centred approach may be most appropriate in the early phase of learning when the learner's knowledge base is weak and skills are limited. Later, a more learner-centred approach should be adopted as experience builds. There are ranges of techniques that can be used in teaching, and part of the skill of the teacher is selecting the most appropriate technique to teach a particular topic. The choice of technique will also be influenced by the type and scope of learners you are working with. However, there should be one overriding reason in selecting a teaching technique – it should help and reinforce learners in their endeavour to become competent independent practitioners to lifelong learning. An effective teacher is one who provides the skills required to facilitate this process.

Actively Involving the Learners

Research into learning in higher professional education has demonstrated conclusively that when we are actively involved in our own learning, the process and its effects become more effective. The following quote from the ancient Chinese philosopher, Confucius, clearly illustrates this

The development of this point appears clear – learners can learn most effectively when they are asked to learn in a deeper, contextualised and often practical/ real-life way. This

may even involve the action of teaching a topic or skill to another person. To be able to carry out this task effectively, they have to become fully involved in developing a clear understanding of a particular skill or body of knowledge. This encourages them to think critically about the material: to anticipate difficult questions; to spend time in concentrating on particularly difficult or challenging elements of the skill or area of knowledge; and to decide on the most effective way of communicating their new found knowledge and skills to others (including their teachers).

Hence, effective teaching and an active learning activity, when combined with purposeful communication, create an environment whereby both the learner and teacher can develop in harmony, each addressing their personal educational need.

"I hear and I forget. I see and I remember. I do and I understand." ⁵

Effective teaching and active learning are not only interconnected, but to improve the effectiveness of one requires the positive manipulation of the other.

Teaching and Learning in daily practice

If effective teaching is directly related or connected to a process of active learning, catalysed by purposeful communication, how can we take these two concepts forward to educationally enrich daily practice; encouraging the development of either our own personal development, or those assigned to us as learners? Below are a series of simple practice activities in which we believe that effective teaching and learning can be developed for the benefit of all: -

- **Reflective learning activity** – Learning by reflection is not a new concept. The importance of reflective practice has been

highlighted in descriptions of socially responsible medical schools ^{6,7} and is concerned with a process that links the self with the outside, in both a learning and teaching relationship. ⁸ Although negative feelings, especially about the self can form major barriers to learning they can trigger reflexive interrogation of experience that ultimately enhances learning and practice. Positive feelings and emotions can also enhance the learning process because they keep the learner on the task and provide motivation for exploring new interpretations and understanding that may lead to innovations in practice. However, how many of us put aside a period of either shared or personal reflection after particular activities, or at the end of a day? A time to reflect, ponder and possibly learn from experience can be lost in hussle of a busy working day! How much has the "coffee period" been eroded from our daily activity, when we could chat, within the team, about the morning's activities, with the majority of us realising that we learn greatly from such an activity

- **Structured teaching activity**
The act of processing a formal teaching activity requires forethought, in its organisation, timing and content. Effectively structuring the session and providing protected teaching time is probably more important than having a period of long duration. The literature surrounding the process of micro-teaching ⁹ clearly demonstrates what can be achieved in a short period of time, between teacher and learner. So why do we become disappointed if we cannot have the minimum hour to teach our students? Why do we so often throw out those ten to fifteen minute activities that, with purposeful structuring, can become highly valuable teaching and learning sessions?

• **Report Writing –**

The one thing that is very common within all of our practices is the need to write reports or offer opinion; similarly the need to write referral letters. Have we ever thought to sit back and again reflect on what we say, how we say it and what do we expect to happen? Cannot this be turned into a teaching and learning situation, an educational audit, a needs analysis for continuing professional development? It is interesting to note that the infrequent admission of ignorance in certain areas is not always seen as a positive stimulus to learning. A shared thought is often a shared educational need.

• **Case Presentations in Practice –**

Why, when such activities as case presentations, journal clubs and “hot topics” are part of weekly activities in hospital practice, do we not have them as a stimulus to teach and learn in Family Medicine? If it's a time factor, then why, through effective structuring and possibly sharing with neighbouring practices, can it not become a recognised continuing professional development activity? We often share a problem case with a close medical friend; why not extend the group and make it into a structured learning activity, an action-learning group¹⁰, a problem-based learning activity¹¹ or case-based learning.¹²

• **Team Meetings –**

There appears to be a lot of variation of what constitutes a team in Family Medicine and what constitutes team meetings, however the potential for teaching and learning remains. In undergraduate education throughout the world, emphasis is placed upon multi-professional and inter-professional learning¹³, but research suggests that it continues

little after the undergraduate clinical years, or more specifically into practice.^{14,15} Are we not missing out on a tremendous opportunity to learn together? Do we not recognise the value of active learning around real clinical situations?

• **Skills Teaching –**

A very important development in Family Medicine has been the realisation and recognition of the high levels of skills available within the cohort of practitioners. Many enter practice with these skills i.e. surgical/obstetric skills. Many develop them through personal interest, others out of a personal need to enhance their practice activities. However, we rarely share or teach these skills to our colleagues, relying more on our hospital-based practitioners for our learning.

As practices become more proficient in teaching, how often do we consider the value of the practice as a venue for teaching skills training or “training the trainers”?

Conclusion

Although we know that teaching, learning and communication remain inextricably tangled with personal development, too often we consider them as isolated tasks or activities within our busy practices, often at the detriment of our personal lives. From the few examples above, it is evident that active learning and hence effective teaching can take place in a variety of work settings. It is proposed that if these activities become part of routine practice, and accepted as such, it is possible to structure our personal development in an integrated and certainly less stressful way. The question to the learner, “*tell me one thing you have learned*” and the personal question “*let me reflect upon what this has taught me*” remain powerful ways to finish any session within practice.

Points to Ponder

- Effective teaching and active learning are part of the same process
- Each is linked by purposeful communication
- They appear to be part of everyday practice
- We should be aiming to reduce stress levels in daily practice
- By a strategic plan to incorporate teaching and learning into everyday practice, it may be possible to reduce stress within practice.

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